

Claims:

Sub A12

5 A process for the preparation of protein hydrolysate from soy flour, said process comprising: hydrolyzing aqueous slurry of defatted soy flour containing 6-30% solid content w/v using proteolytic enzyme of plant origin at pH 5-9 and temperature of  $53 \pm 5^\circ\text{C}$  under stirring for 30 minutes to 6 hours; inactivating the enzyme by a known matter, neutralizing the pH value of the slurry; separating the solids by a known manner and drying the clarified liquor so obtained to get the said hydrolysate.

known matter?

10 2. A process as claimed in claim 1, wherein the solid content of the slurry is 20% w/v.

Sub A13

15 A process as claimed in claim 1, wherein the plant origin proteolytic enzyme is selected from the group comprising of papain and bromelin.

4. A process as claimed in claim 1, wherein 0.4-0.6% w/w/ of the proteolytic enzyme is added to the soy flour.

20 5. A process as claimed in claim 1, wherein the hydrolysis is effect for a period of 3-4 hours.

6. A process as claimed in claim 1, the drying is effected by freeze drying, spray drying and drum drying.

25 7. A process as claimed in claim 1, wherein the protein hydrolysate produced has decreased bitterness. A

8. A process as claimed in claim 1, wherein the protein hydrolysate produced is less hygroscopic in nature.

30

Sub A14

9. A process as claimed in claim 1, wherein the protein hydrolysate has 2-2.2g/100ml bitterness recognition threshold.

Attorney Docket No. 148920-000057-001A-EP-03-000001-1



Sub  
P116

5

20. A protein hydrolysate obtained from soy flour, comprising ~~four~~ 20 to 30 trypsin inhibitor units/mg activity, 95 to 98% Nitrogen Solubility Index, 1 to 1.4% of salt content 3 to 5% moisture, 8 to 8.5% nitrogen and 30 to 35% degree of hydrolysis.

21. A protein hydrolysate as claimed in claim 20, wherein the lipoxigenase and urease activities are not detectable.

Sub  
P117

10

22. A protein hydrolysate as claimed in claim 20, further comprising 2 to 2.2g/100 ml bitterness recognition threshold.

15

23. A protein hydrolysate as claimed in claim 20, wherein the amino acid composition of the protein hydrolysate is similar to the amino acid makeup of the starting material.

24. A protein hydrolysate as claimed in claim 20, wherein the protein hydrolysate retained the nutrition value present in the starting material.

20

25. A protein hydrolysate as claimed in claim 20, wherein the protein hydrolysate does not impart any undesirable flavor for the finished product.

25

26. A protein hydrolysate as claimed in claim 20, wherein the solubility of the protein hydrolysate is independent of the pH value.

Sub  
P118

27. A protein hydrolysate as claimed in claim 20, (has cream color)

which is cream colored.

Add  
P119  
& A20